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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF APPEALS

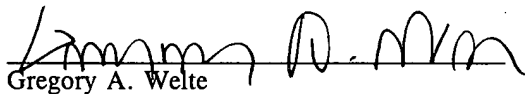
Assignee's Docket No.: 8884.00)
Group Art Unit: 2876)
Serial No.: 09/710,342)
Examiner: April Nowlin)
Filing Date: November 9, 2000)
Title: Self Service Terminal)
_____)

APPEAL BRIEF

The fee for this Brief may be billed to Deposit Account 140 - 225, NCR Corporation.

CERTIFICATE OF MAILING

I certify that this document is addressed to Mail Stop AF, Commissioner of Patents, PO Box 1450, Alexandria, VA 22313-1450, and will be deposited with the U.S. Postal Service, first class postage prepaid, on March 8, 2004.


Gregory A. Welte

1. REAL PARTY IN INTEREST

NCR Corporation.

2. RELATED APPEALS AND INTERFERENCES

None.

3. STATUS OF CLAIMS

Claims 1 - 10, 21, 22, and 24 - 41 are pending, rejected, and appealed.

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4. STATUS OF AMENDMENTS

No Amendments-After-Final have been submitted.

5. SUMMARY OF INVENTION

In Brief

The invention concerns an Automated Teller Machine, ATM, which can be used by persons of impaired sight. Tactile buttons are provided, having different senses of feel, such as buttons of different shapes. The user initially programs buttons for desired transactions. For example, a "star" button may call for dispensing fifty dollars in cash.

Detail and Citations to Specification

As the Specification, page 6, lines 1 - 5, explains, Figure 1 shows a Self Service Terminal, SST, 10, in the form of an Automated Teller Machine, ATM. The SST 10 includes a user interface 20, which includes six push buttons shown in Figure 3, and labeled 29a - 28f. All push buttons are of different shape.

The Specification, page 6, lines 14 - 20, states that each push button 28 is associated with a pre-defined transaction. For example the elliptical button 28a causes a withdrawal of a specific amount of currency.

6. ISSUES

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Whether claims 1 - 10, 21, 22, and 24 - 41 are obvious under 35 USC § 103, based on Tarbox and Wheeler.

7. GROUPING OF CLAIMS

A single grouping of claims is present. In this group, no claims stand or fall together, with the exception of claims 2 - 6, 27, 29, 30, 31, 34, 35, 37, and 39, which stand or fall with their parents.

8. ARGUMENT

SUMMARY OF ARGUMENT

Point 1

All claims state that all buttons are of different shapes. Thus, the claim language prohibits two buttons of the same shape, such as two square buttons.

Even if the references are combined, that is not attained. Wheeler is cited to show differently shaped buttons. However, he only shows three shapes, but 14 buttons. (See his Figure 12.) Thus, he must repeat some shapes (and he does: five buttons in his Figure 12 are square.)

Thus, even if the references are combined, this recitation is not attained.

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Point 2

The combination of Wheeler with Tarbox must be done in a logical manner. Wheeler (Figure 12) shows a special numeric keypad. Appellant submits that two basic possibilities are (1) addition of Wheeler's keypad to Tarbox and (2) substitution of Wheeler's keypad for that of Tarbox. Other possibilities may exist, but it seems reasonable to start here.

Addition of Wheeler's keypad seems unreasonable. What is the purpose of a second keypad ?

Thus, substitution seems the logical choice. But substitution does not lead to the invention. Substitution amounts to replacing Tarbox's keypad 107 in his Figure 1 with the keypad shown in Wheeler's Figure 12. Both are numeric keypads.

But that substitution does not lead to programmed keys which initiate "transactions," as claimed. The reason is that Tarbox's keys 105 are the pre-programmed keys.

Thus, the PTO's substitution merely replaces Wheeler's numeric keypad for Tarbox's. But that does not show the claimed invention

Point 3

Assume that, contrary to Point 2, above, Tarbox's buttons 105 are made of different shapes. However, merely substituting shaped buttons for Tarbox's buttons 105 does not produce the claimed invention.

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One reason is that a **functional, operating** device must be obtained. The MPEP requires a "likelihood of success" be shown.

Tarbox shows a system which is adapted to interacting with persons of normal visual ability. Tarbox, at different times, displays different menus to the customer. For example, in Tarbox's Figure 1, display screen 103 shows a specific menu. It contains three options: WITHDRAW, DEPOSIT, and Q CASH. The buttons 105 are used to select an option.

But blind people cannot know **which menu** is displayed at **any given time**. That is, Tarbox's buttons 105, even if made of different shapes, do not always initiate the same transactions. The specific transactions depend on which menu is being displayed in screen 103. Blind people cannot see the menu.

Specifically, even if the top button 105 is star-shaped, that button does not always initiate a WITHDRAWAL, as Tarbox's Figure 1 indicates. A blind person does not know what transaction that button induces, because the transaction changes as the menu changes.

Thus, no likelihood of success has been presented.

Point 4

It could be argued that Tarbox's operation should be modified so that a new class of customer is created, namely, blind customers. Under this modification:

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- Those customers only receive a single screen of options.
- Different shapes of buttons are provided.
- The customer memorizes which shape of button corresponds to each option.
- No visual instructions are given to these customers.

However, no teachings whatever have been given in favor of these modifications of Tarbox.

Thus, for a likelihood of success to be shown, additional modifications of Tarbox are required. No teachings have been given in favor of those modifications.

Point 5

The Office Action presumes, without justification, that Wheeler's numeric keypad, having keys of special shape, are somehow more easily used by a blind person. The undersigned attorney performed an experiment, described below, which contradicts this. The undersigned attorney had no trouble dialing a telephone number, using an ordinary numeric keypad, with his eyes closed.

Thus, no evidence has been given that the addition of Wheeler's keypad to Tarbox actually makes any difference, or acts as an improvement.

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Point 6

No valid teaching has been given for combining the references. Two rationales are given. One is that the combination of references is "aesthetically pleasing." However, no evidence has been given in support of this conclusion.

The second rationale, in essence, is that adding Wheeler's buttons to Tarbox allows blind persons to use Tarbox's ATM. However, this rationale is false, as a matter of fact, as explained in Point 3, above.

Further, no teaching has been presented stating that ATMs should be made accessible to blind persons. That is required, in order to combine Wheeler with Tarbox. Instead, the PTO's second rationale merely points to a feature of such an ATM, namely, that such ATMs are usable by blind persons.

But that rationale **presupposes** the combination of references. A teaching for making the combination in the first place is required.

Point 7

A teaching is absent for additional reasons. Wheeler shows a telephone which provides acoustic feedback for visually impaired persons. That is, a person initially punches in a number, but the number is not actually used at that time. Instead, the telephone speaks the number. If the spoken number is correct, the person

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presses "send," and the number is transmitted to the telephone system in the usual manner. If the number is not correct, the person tries again.

Wheeler shows several types of keypad. His Figure 1 shows an ordinary telephone-type keypad. His Figure 12 shows a telephone keypad having keys three different shapes.

No teaching has been given for selecting the keypad of Wheeler's Figure 12 over that of his Figure 1.

Point 8

Appellant submits that hindsight is being used. Appellant submits that a primary teaching of Wheeler is to provide the acoustic feedback: his system speaks the numbers of a telephone number, so that a blind person knows that the number is correct.

This feedback teaching is primary because Wheeler uses it with both keypads. He uses it for the keypad of his Figure 1 (page 12, lines 15 - 25) and for that of his Figure 12 (page 15, lines 6 - 17).

Therefore, Wheeler teaches that, for the benefit of visually impaired persons, speech feedback should be used with all telephones, and he shows different types of telephones, having different keypads.

Consequently, if the references are to be combined, a more apparent combination is to add Wheeler's speech feedback to Tarbox.

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But that does not produce the claimed invention.

From another point of view, the element selected from Wheeler (shaped keys) for combination with Tarbox is not the major teaching of Wheeler. It is not major, because Wheeler's major teaching applies to all Wheeler's embodiments, and Wheeler says so.

Thus, the PTO has selected one of Wheeler's embodiments, but has ignored the major teaching. No teaching has been given for this particular selection process.

Point 9

Some claims state that buttons on the ATM can be pre-programmed by the user. Wheeler is contradictory to this. His buttons are those of a standard tone-type telephone. Those buttons are pre-programmed by the requirements of the telephone company, and cannot be changed.

Contradictory references are being combined.

Comment

Not all points in this Summary of Argument are elaborated below. Some are considered self-explanatory.

END SUMMARY

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ARGUMENT

Claim 1

Claim 1 recites:

1. A self-service terminal comprising:

a user interface including a group of indicators, all of different shapes and each indicator being associated with a pre-defined transaction so that a user may execute a desired transaction by selecting a single indicator.

Applicant respectfully submits that

- 1) even if the references are combined, the invention is not attained,
- 2) it makes no sense to combine the references in the manner done, or
- 3) it is impossible to combine the references in the manner done,

or all of (1), (2), and (3). These assertions will be explained.

TARBOX REFERENCE

Tarbox allows a user of an ATM to establish pre-programmed transactions. For example, his Figure 5 shows pre-programmed options which a certain user may have established. Figure 5 shows the computer display of the ATM, which is also shown in Figure 1, and labeled "103." The user selects one of buttons 105 in Figure

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2, to select a pre-programmed option, such as making a withdrawal.

Each user has a different collection of options, such as options 505, 507, 509, 511, and 513 in Tarbox's Figure 5. The ATM learns of a specific user's particular pre-programmed options from the user's passcard. (Column 5, lines 11 - 45.)

Tarbox's Figure 2 shows "conventional" options, which are presumably presented to all customers. (Column 4, line 37 et seq.)

Significantly, Figures 2 and 5 of Tarbox show **the computer display screen** of Tarbox's ATM. That is, the elements such as 507 in Tarbox's Figure 5 and 201 in Figure 2 are actually **visual images** on the computer display. (Column 3, lines 48 - 49 and 52 - 54; column 4, lines 37 - 47; column 6, line 11 et seq.) Applicant will term these visual images "option labels."

The option labels cannot be felt by the human hand, and have no tactile content. Thus, the option labels do not assist a visually impaired person.

The user in Tarbox selects an option by pressing a button 105 in Tarbox's Figure 1, which button is located adjacent to the option label. (Column 4, lines 18, 19.) However, Tarbox does not appear to state that the buttons 105 have any tactile characteristics. They would appear to be flat "membrane-type" switches.

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WHEELER REFERENCE

Wheeler is concerned with telephone usage by visually impaired persons. Wheeler provides a system wherein a user dials a telephone number, but the number is not transmitted to the telephone company office immediately. Rather, Wheeler's system speaks the numbers first. If the numbers are correct, then the user presses "send," and the number is sent to the telephone company in the usual manner.

Wheeler shows different types of keypads. His Figure 1 shows an ordinary keypad. His Figure 12 shows a keypad having buttons of three shapes (circle, square, and diamond), but shows 14 buttons. Plainly, some shapes must be repeated (such as in buttons 4 and 6, which are both squares).

Wheeler makes an incorrect statement. He states that "adjacent" keys are of different shapes. However, that is not actually so. In his Figure 12, the "3" button would appear to be "adjacent" the "5" button. However, both buttons are circular, contrary to his statement.

References are Non-Analogous Art

Tarbox shows an ATM. Wheeler shows a telephone. The references lie in non-analogous arts.

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Analysis of References

Applicant submits that the references, if combined at all, must be combined in a logical manner. Wheeler shows a numeric keypad. Tarbox also shows such a keypad, labeled 107 in his Figure 1. If the references are to be combined (and Applicant **does not** admit that a teaching for combining them has been given) then Wheeler's keypad should replace Tarbox's keypad 107.

However, that does not produce the claimed invention. Claim 1 states:

. . . each indicator being associated with a pre-defined transaction so that a user may execute a desired transaction by selecting a single indicator.

No pre-defined transactions are associated with the numeric keypad 107 of Tarbox. Thus, even if Wheeler's keypad is substituted for Tarbox's, pre-defined transactions (for that keypad) are still absent.

That is, if Tarbox does not pre-program his numeric keypad, there is no reason to believe that he would pre-program Wheeler's, if substituted.

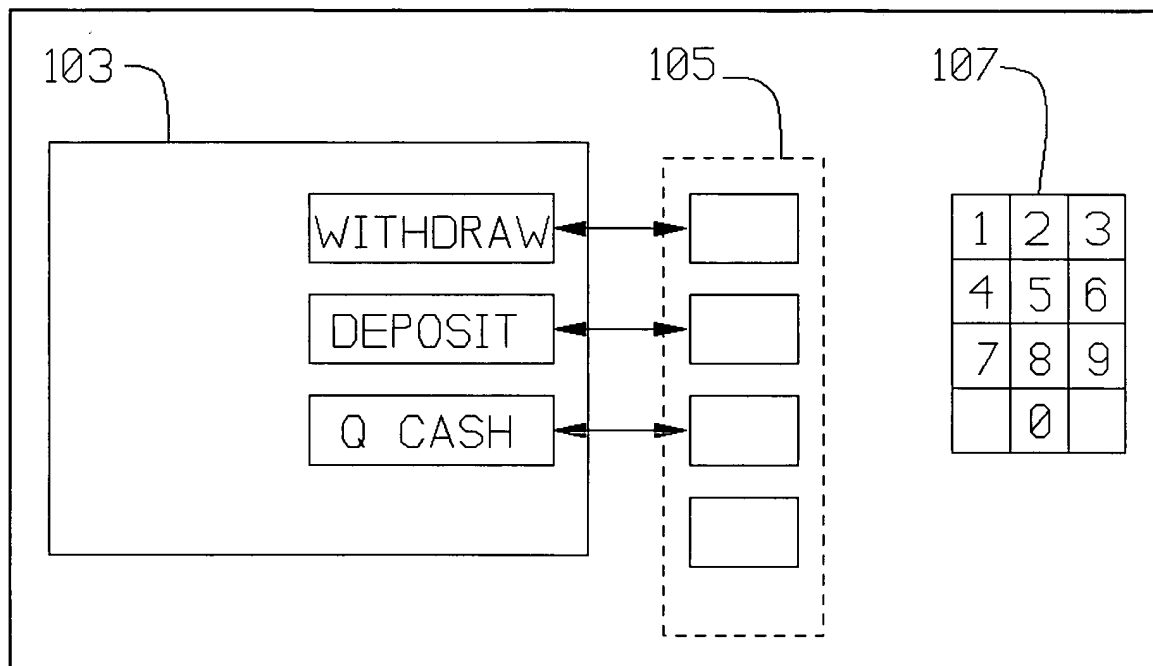
Further, all claims state that all buttons are of different shapes, or of a different combination of size, shape, and color. Wheeler does not show that. In his Figure 12, multiple square buttons are shown, as are multiple circular buttons. Thus, even

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if the references are combined, the claims in this group are not attained.

No Likelihood of Success Shown

Sketch 1, below, is a rendition of Tarbox's Figure 1.



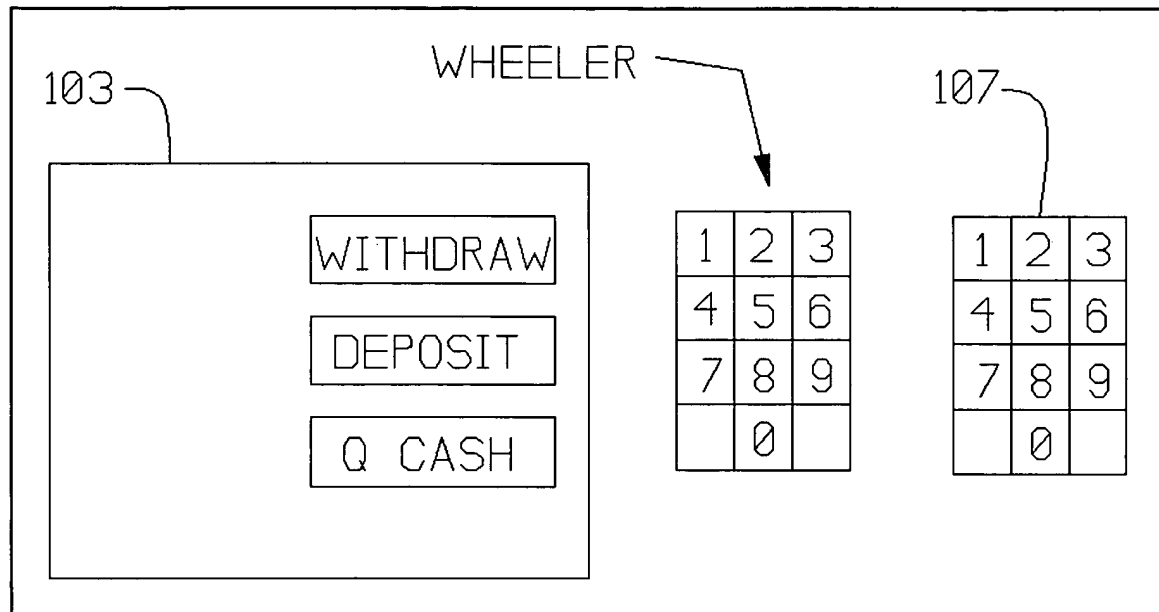
Sketch 1

Display screen 103 carries labels WITHDRAW, DEPOSIT, and Q CASH. Adjacent the display screen 103 are the buttons 105 which the user presses, when pre-programmed labels are presented.

Sketch 2, below, illustrates Wheeler's keypad replacing the

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buttons 105.



Sketch 2

Applicant points to several problems which this creates.

Problem 1

One is that this second numeric keypad creates confusion. Which is the "actual" numeric keypad, which a customer utilizes to enter dollar amounts ?

If the PTO asserts that the numbers should be removed from Wheeler's numeric keypad (so that Tarbox's keypad 107 is the one used to enter numbers), then Applicant requests that a teaching be

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identified for this removal.

Problem 2

A second problem is that Tarbox shows a **single** column of labels (WITHDRAW, DEPOSIT, and Q CASH), while Wheeler's keypad contains **three** columns of buttons. Which column of Wheeler's keypad corresponds to the **single** column of labels ? Applicant submits that, whatever the answer, no teaching has been given in support of the answer.

Problem 3

A third problem is that, if it be asserted that Tarbox should show three columns of labels on display 103, to correspond to the three columns of buttons in Wheeler's keypad, then Applicant asks that a teaching for this modification of Tarbox be identified.

These three problems, and others, indicate that a likelihood of success in the combined references has not been shown.

-- The combination of Sketch 2 is confusing.

-- It is not clear which column of buttons in Wheeler's keypad corresponds to the column of labels in Tarbox's display 103.

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MPEP § 706.02(j) states:

Contents of a 35 U.S.C. 103 Rejection

To establish a prima facie case of obviousness, three basic criteria must be met.

Second, there must be a reasonable expectation of success.

Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination **and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure.**

This MPEP section states that the expectation of success must be found in the references. In this case, no expectation has been shown at all, as just explained, let alone shown in the references.

In addition, as explained above, the claims state that all buttons are different. This MPEP section requires that recitation be shown in the references. It is not: some of Wheeler's buttons are the same.

No Teaching Given

Two rationales are given for combining the references.

First Rationale

One is that the use of differently shaped buttons is

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aesthetically pleasing to the user. (Page 4, bottom.) However, several problems exist in this rationale.

PROBLEM 1

One is that this rationale is a naked conclusion, unsupported by evidence. Evidence is required.

PROBLEM 2

No objective standard exists by which to ascertain whether, in fact, anything is aesthetically pleasing. Thus, the truth of the PTO's assertion cannot be tested.

If the truth of an assertion cannot be tested, then the assertion lacks meaning.

The PTO's assertion lacks meaning. A meaningless assertion cannot be used to justify a combination of references.

PROBLEM 3

The rationale has not identified which user is being considered. Wheeler discusses sight-impaired users. Blind people cannot see the buttons, so it is impossible for the buttons to be "aesthetically pleasing" to them.

PROBLEM 4

The rationale must be shown in the prior art, as the last MPEP

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section cited above indicates.

PROBLEM 5

A fifth problem is that, if aesthetically pleasing buttons are desired, then Wheeler, by himself, provides such buttons. There is not need to add Tarbox. Thus, the goal of attaining aesthetically pleasing buttons is attained by Wheeler alone. No teaching has been presented suggesting that "aesthetically pleasing" buttons be added to Tarbox's ATM.

PROBLEM 6

A sixth problem is that the rationale based on **aesthetics** does not lead to the **functionality** contained in the claims. For example, some claims state that (1) the buttons are of different shapes and (2) selecting a button executes a transaction. If one is concerned with aesthetics, one would simply paste inactive buttons onto the ATM, and not connect them. But that does not lead to the claimed functionality.

Restated, the pursuit of aesthetics does not lead to functionality.

PROBLEM 7

A seventh problem is that thousands of alterations in a reference can improve its aesthetics. The PTO has shown no reason

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why the shapes of the buttons should be selected over all the other possibilities.

PROBLEM 8

The rationale based on aesthetics presumes that Tarbox is somehow deficient in aesthetic appearance. That deficiency has not been shown.

From another point of view, the rationale presumes that the combination of references results in enhanced aesthetics. No evidence showing that has been advanced. Further, no objective criteria have been given to ascertain whether the enhancement actually exists.

If the enhancement cannot be verified, then the enhancement cannot be used as a basis for rejection of claims.

PROBLEM 9

It is impossible to verify whether aesthetics have improved or not. A primary reason is that the references show **simplified schematic drawings**. Those drawings do not show how the elements **actually look**. Thus, it is impossible to verify whether aesthetics have improved or not.

Second Rationale

The second rationale is that Wheeler's buttons, if added to

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Tarbox, enable a blind person to execute a transaction on Tarbox's device. However, that is not a teaching for adding such buttons to Tarbox. That merely identifies a **characteristic** of the combined references, but **after** the combination is made. A teaching for making the combination in the first place is required.

No teaching for making Tarbox's ATM accessible to blind persons has been shown in the prior art.

And, as explained above, no likelihood of success has been given for the combination.

Problems with Rationales

REJECTION IS INCOMPLETE

As just stated, the PTO must show a teaching in the prior art that Tarbox's ATM should be made accessible to blind persons, or similar. That has not been done.

But even if such a teaching were found, and if one pointed to Wheeler as providing a solution, the claimed invention still is not attained. A primary reason is that Wheeler's solution is to provide audible feedback. Thus, under this combination, the solution would be to have each button "speak" its function, when pressed.

That is not the claimed invention.

Somehow, a teaching must be found for selecting the shaped keys of Wheeler, over the standard keys. But no teaching for that

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selection has been given.

Further, even if such a teaching is found, the claims are not attained for another reason. That reason is that, speaking generally, all claims state that all keys are different. That is, no two keys are the same. Wheeler does not show that.

COMBINATION DOES NOT FOLLOW IN RE DEMBICZAK

The PTO's rationale does not follow the CAFC's decision of In re Dembiczak, 175 F. 3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999).

In brief, Dembiczak states that

- **objective evidence** of a teaching for combining references must be provided;
- the Examiner's speculation does not qualify as objective evidence;
- numerous sources can provide a teaching to combine references;
- knowledge of one skilled in the art can act as a source;
- however, THE RANGE OF SOURCES AVAILABLE DOES NOT DIMINISH THE REQUIREMENT FOR ACTUAL EVIDENCE;
- broad conclusory statements by the Examiner do not qualify as evidence; and
- "particular factual findings" as to the

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teaching are required.

The PTO has not provided the required "evidence" for combining the two references.

COMBINATION MODIFIES REFERENCES, WHICH IS NOT ALLOWED
COMBINATION RENDERS WHEELER INOPERATIVE, WHICH IS NOT ALLOWED

Wheeler states that the person using his device punches in a sequence of telephone numbers. As each number is punched, Wheeler's device "speaks" the number. Also, Wheeler's device "speaks" the sequence of numbers punched. (Page 7, bottom.) This allows the user to correct errors.

Tarbox shows no speech-synthesis system. If Wheeler's buttons alone are added to Tarbox, the audible feedback of Wheeler is lost. Thus, Wheeler is rendered inoperative.

MPEP § 2143.01, section 5, states:

The proposed modification cannot render the prior art unsatisfactory for its intended purpose.

From another point of view, if Wheeler's audible feedback is added to Tarbox, no teaching has been given for that addition.

PTO'S RATIONALE IS INCOMPLETE

Assume arguendo that Wheeler's keypad is added to Tarbox, as in Sketch 2 above. The PTO has not shown how its hypothetical

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blind person would know which key to press, for example, to execute the WITHDRAW function.

Until the PTO shows this, no likelihood of success has been shown, as required.

APPLICANT SUBMITS THAT BASIC ASSUMPTION IS INCORRECT

Wheeler utilizes audible feedback, and shows round, square, and diamond-shaped keys in his Figure 12. According to Wheeler, both those features (shape and audible feedback) together assist his sight-impaired user.

Wheeler states:

Visually impaired (and other disabled) people have great difficulty in correctly identifying the desired buttons/pads to operate on known keypads.

(Page 1, lines 21 - 23.)

Applicant submits that this statement is factually incorrect.

Insofar as Wheeler is discussing an ordinary keypad of the type shown in his Figures 1, 2, and 4, and that of Tarbox's Figure 1 (if the keys of the latter are 3-dimensional), his statement is incorrect.

If one closes one's eyes, one can easily dial any desired telephone number, using such an ordinary keypad. The undersigned attorney demonstrated this on June 15, 2003, at about noon. He

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owns a telephone, which has a keypad containing a 3 x 4 array of raised buttons, each about the size of a postage stamp.

He closed his eyes, and dialed his FAX machine, the number of which is 296 - 4477. He did this by remembering that the following keys are located at the corresponding row-column locations:

Key	Row	Column
2	1	2
9	3	3
6	2	3
4	2	1
4	2	1
7	3	1
7	3	1

He located each row-column position by feeling the rows and columns. The FAX machine rang in the usual manner.

Therefore, Applicant submits that Wheeler's statement, cited above, is incorrect. Consequently, any notion that the added shapes of his Figure 12 provide improved operation for blind persons must be held in suspicion.

As just demonstrated, an ordinary keypad can easily be used by a blind person.

Therefore, Applicant submits that the addition of the shaped keys of Wheeler to Tarbox adds nothing to Tarbox. Thus, there is no reason to add them.

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Wheeler Teaches Away

Wheeler states that, in his system, the user can "take as long as necessary to select the telephone number to be dialed." (Page 7, lines 27, 28.)

That is contrary to ordinary operation of an ATM, such as in Tarbox. The manufacturer of the ATM does not want users to "take as long as necessary." That is a known fact.

Tarbox recognizes this. In column 2, lines 7 - 9, he mentions the problem of customers' being required to "go through a myriad of menu screens to get to the actual function he or she desired." The actual problem is that the customer consumes time, and stalls the customers behind him.

The QUICK CASH option is consistent with this conclusion.

No Expectation of Success II

Tarbox states that the options displayed on his screen (such as those in his Figure 5) are determined by the particular access-card which the customer presents to the ATM. (Column 3, lines 6 - 18; column 7, lines 56 - 61.)

The PTO has not shown how a blind person selects the proper card, from the other cards in the person's wallet/purse.

No Expectation of Success III

Tarbox describes the programming procedure by which a person

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programs the functions which his/her card makes available. (Column 8, line 4 et seq.)

It is clear that the person programming the card must be able to read the computer screen, in order to navigate through the flow charts.

By analogy, it appears that the programming process is similar to purchasing an item over the Internet, using an ordinary browser. Blind people cannot use such browsers.

The PTO has not shown how a blind person can program the card.

It could be argued that the blind person obtains a pre-programmed card (see Tarbox, column 7, lines 56 - 58). If so, no teaching has been given showing (1) how the options displayed, as in Tarbox's Figure 5, correspond to buttons of specific shape and (2) how the blind user is informed of the position of the buttons.

No Expectation of Success IV

This point is perhaps a continuation of the previous.

Applicant submits that the rejection is incomplete. Somehow, the blind person must be told which shape of a button corresponds to which function. For example, considering Tarbox's Figure 5, the blind person must be told which shape corresponds to "WITHDRAW \$ 75," which shape corresponds to "PAY PHONE BILL," and so on.

The PTO has not explained how the blind person obtains this information. The rationales for rejection are incomplete: they do

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not explain how a likelihood of success is attained.

No Expectation of Success V

An overall reading of Tarbox, especially Column 7, line 51 et seq., indicates that the customer is presented with multiple screens. For example, the customer may choose to make a mortgage payment. After that is completed, Tarbox's ATM returns to the "core program." (Column 9, line 32.) Plainly, that program displays the material shown in Tarbox's Figure 5, so that the customer can select another option.

Applicant submits that it is not practical to expect a blind person to understand which of several screens is being displayed at any given time.

Further, Tarbox states that instructions are displayed to the customer, such as telling the customer to select something. (Column 9, lines 40 - 43.) The PTO has not shown how Tarbox can give these instructions to a blind person.

Applicant submits that these examples further illustrate a lack of expected success.

One Conclusion

The PTO's combination of references requires additional items, in order to show the requisite expectation of success. These items would seem to include:

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- 1) Some way of explaining to a blind person which screen is being displayed at any given time, so that the person knows what options are displayed.
- 2) Some way of giving instructions to a blind person.
- 3) Some way of accepting dollar amounts from the blind person using Tarbox's keypad.¹

It could be argued that Tarbox's operation should be modified so that a new class of customer is, in effect, generated, namely, blind customers.

- Those customers only receive a single screen of options.
- Different shapes of buttons are provided.
- The customer memorizes which shape of button corresponds to each option.
- No visual instructions are given to these customers.

However, no teachings whatever have been given in favor of these modifications of Tarbox.

The preceding applies to the remaining claims.

¹ In this connection, Applicant points out that, if Tarbox's existing numeric keypad will suffice for a blind person, then no reason exists to modify his option-keys 105 for the blind person.

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Response to Rejection of Other Claims

Claim 7

Claim 7 recites:

7. The terminal according to claim 1, wherein the pre-defined transaction is programmed by the owner of the terminal.

The PTO has not identified this recitation in the references.

MPEP § 2143.03 states:

To establish prima facie obviousness . . . **all the claim limitations** must be taught or suggested by the prior art.

The rejection cannot stand until this recitation is shown in the references.

Claim 8

Claim 8 recites:

8. A self-service terminal comprising:

a user interface including a plurality of indicators for entering data, each indicator being different to the other indicators in size, shape, color, or texture, or a combination thereof and being associated with a pre-defined transaction so that a user may execute a desired transaction by selecting only one indicator.

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This recitation has not been identified in the references. The rejection cannot stand until this recitation is shown in the references.

As explained above, Wheeler shows groups of buttons which are the same shape. For example, in his Figure 12, buttons 2, 4, 6, 8, and S are all square. Claim 8 states "each indicator being different to the other indicators in size, shape, color, or texture, or a combination thereof . . ."

Claim 9

Claim 9 has not been identified in the references. The rejection cannot stand until this recitation is shown in the references.

As explained above, Wheeler shows groups of buttons which are the same shape. For example, in his Figure 12, buttons 2, 4, 6, 8, and S are all square. Claim 9 states "each indicator having a unique attribute of size, shape, color, texture, or combination thereof. . ."

Claim 10

Claim 10 has not been identified in the references. The rejection cannot stand until this recitation is shown in the references.

As explained above, Wheeler shows groups of buttons which are

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the same shape. For example, in his Figure 12, buttons 2, 4, 6, 8, and S are all square. Claim 10 states "indicators which are all different in size, shape, color, texture, or a combination thereof. . ."

Claim 21

Claim 21 has not been identified in the references. The rejection cannot stand until this recitation is shown in the references.

As explained above, Wheeler shows groups of buttons which are the same shape. For example, in his Figure 12, buttons 2, 4, 6, 8, and S are all square. Claim 21 states "a) an interface in which all buttons are different in size, shape, or color;"

Claim 24

Claim 24(b) has not been shown in the references. It recites "N Buttons" "which are of N different shapes." As explained above, all Wheeler's buttons are not of different shapes.

Further, claim 24(a) recites "an ATM" "which includes" "i) a touch-sensitive display." Appellant cannot locate that in Tarbox, and requests that it be identified, by way of Examiner's Answer or otherwise.

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Claim 25

Claim 25 recites:

25. Apparatus according to claim 24, wherein the N buttons are effective to enable a blind person to select and execute one of the N transactions, **without reference to any text on the display.**

The highlighted part of claim 25 cannot be found in Tarbox. One reason is that the functions of his buttons 105 in his Figure 1 are determined by the labels printed on his display 103. Tarbox states that those labels are determined by the previous button pushed by a customer. (Column 4, lines 36 - 47.)

Thus, for a person to know what a given button 105 in Tarbox's Figure 1 will do, that person **MUST** refer "to" "text on the display" 103. That is contrary to claim 25.

Claim 26

Claim 26 recites one feature of the touch-sensitive display. Since Tarbox does not show such a display, claim 26 cannot be found in the references, even if combined.

Claim 32

Claim 32 recites:

32. Apparatus according to claim 31, wherein

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i) for some users, at least one button performs a function described by its associated indicator or text, and

ii) for other users, said button performs a different function, not described by the associated indicator or text of the button.

That is, for some users, a label is present for a button, but for other users, no label is present for that same button.

That has not been shown in the references, even if combined.

Claim 33

Claim 33 states that "ii) no two buttons have the same combination." That has not been shown in the references, even if combined.

Claim 38

Claim 38 recites:

38. Apparatus according to claim 33, wherein

i) for some users, at least one button performs a function described by its associated indicator or text, and

ii) for other users, said button performs a different function, not described by the associated indicator or text of the button.

That is, for some users, a label is present for a button, but for other users, no label is present for that same button.

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That has not been shown in the references, even if combined.

Claim 6

Claim 6 recites:

6. The terminal according to claim 1,
wherein the pre-defined transaction is
programmed by a user.

Contradictory references are being combined. Wheeler discusses no user-programming of his buttons. Further such would be impossible, since the functionality of his buttons is determined by the common-carrier public telephone system. That is, each button emits a unique pair of DTMF (Dual-Tone, Multi-Frequency) signals.

No teaching has been given for programming Wheeler's non-programmable buttons.

Claim 7

Claim 7 recites:

7. The terminal according to claim 1,
wherein the pre-defined transaction is
programmed by the owner of the terminal.

The discussion of claim 6 applies here. Contradictory references are being combined, and no teaching has been given for programming Wheeler's non-programmable buttons.

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Claim 21

Claim 21(b) recites:

- b) controller means for accepting instructions for allowing
- i) a first user to program a first button to perform a first predetermined function, when later actuated by the first user.

The discussion of claim 6 applies here. Contradictory references are being combined, and no teaching has been given for programming Wheeler's non-programmable buttons.

Claim 22

Claim 22 recites:

- 22. ATM according to claim 21, wherein the controller means accepts additional instructions for allowing
- ii) a second user to program the first button to perform a second predetermined function, different from the first predetermined function, when later actuated by the second user.

The discussion of claim 6 applies here. Contradictory references are being combined, and no teaching has been given for programming Wheeler's non-programmable buttons.

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Claim 28

Claim 28 recites:

28. Apparatus according to claim 24, and further comprising:

c) configuration means for enabling a user to change the function executed by at least some buttons.

The discussion of claim 6 applies here. Contradictory references are being combined, and no teaching has been given for programming Wheeler's non-programmable buttons.

Claim 36

Claim 36 recites:

36. Apparatus according to claim 35, and further comprising:

c) configuration means for enabling a user to change the function executed by each button.

The discussion of claim 6 applies here. Contradictory references are being combined, and no teaching has been given for programming Wheeler's non-programmable buttons.

Claim 40

Claim 40 recites:

40. Automated Teller Machine, comprising:

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- a) a row of buttons, all of different shapes;
- b) a display which presents a label for each button;
- c) a dispenser for dispensing cash to a user;
- d) a card reader for reading a passcard supplied by a user;
- e) control means for detecting a press of a button, and executing a function described by the label associated with the button;
- f) configuration means for allowing a user to change the function executed by said button, so that said button performs different functions for different users.

The discussion of claim 6 applies to claim 40(f). Contradictory references are being combined, and no teaching has been given for programming Wheeler's non-programmable buttons.

Also, claim 40(a) recites a "row" of buttons. The Office Action combines a matrix of buttons from Wheeler with Tarbox.

A matrix of buttons is not a "row." Even if the references are combined, claim 40 is not attained.

Claim 41

Claim 41 recites:

41. An Automated Teller Machine, ATM, comprising:

- a) an interface in which every user-actuated button is a different combination of (size, shape, and color), compared with all other

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buttons; and

b) controller means for accepting instructions for

i) allowing a first user to program a first set of buttons to perform a first set of functions, when later actuated by the first user; and

ii) allowing a second user to program a second set of buttons to perform a second set of functions, different from the first set, when later actuated by the second user.

The discussion of claim 6 applies to claim 41(b). Contradictory references are being combined, and no teaching has been given for programming Wheeler's non-programmable buttons.

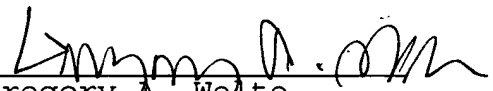
Also, claim 41(a) states that all buttons are different. That is contrary to Wheeler. Even if the references are combined, claim 41(a) is not attained.

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Conclusion

Applicant requests that the Board reverse the rejections, and pass all claims to issue.

Respectfully submitted,


Gregory A. Welte
Reg. No. 30,434

NCR Corporation
1700 South Patterson Blvd.
WHQ - 5E
Dayton, OH 45479
March 8, 2004
(937) 445 - 4956

WELTE DIRECT: (765) 296 - 4699

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9. APPENDIX: Appealed Claims

1. A self-service terminal comprising:
a user interface including a group of indicators, all of different shapes and each indicator being associated with a pre-defined transaction so that a user may execute a desired transaction by selecting a single indicator.
2. The terminal according to claim 1, wherein each indicator includes a push button.
3. The terminal according to claim 1, wherein the indicator protrudes from a surface on which the indicator is mounted.
4. The terminal according to claim 1, wherein the unique attribute is related to size of the indicator.
5. The terminal according to claim 1, wherein the unique attribute is related to color of the indicator.
6. The terminal according to claim 1, wherein the pre-defined transaction is programmed by a user.
7. The terminal according to claim 1, wherein the pre-

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defined transaction is programmed by the owner of the terminal.

8. A self-service terminal comprising:

a user interface including a plurality of indicators for entering data, each indicator being different to the other indicators in size, shape, color, or texture, or a combination thereof and being associated with a pre-defined transaction so that a user may execute a desired transaction by selecting only one indicator.

9. A method of executing a transaction at a self-service terminal, the method comprising:

providing a plurality of indicators, each indicator having a unique attribute of size, shape, color, texture, or combination thereof;

associating a unique transaction with each indicator; and
in response to a selection of one of the indicators, executing a transaction associated with the selected indicator.

10. A self-service terminal comprising:

a user-interface consisting essentially of a plurality

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of

- (1) indicators which are all different in size, shape, color, texture, or a combination thereof,
- (2) an identifier, and
- (3) a dispensing area.

21. An Automated Teller Machine, ATM, comprising:

- a) an interface in which all buttons are different in size, shape, or color;
- b) controller means for accepting instructions for allowing
 - i) a first user to program a first button to perform a first predetermined function, when later actuated by the first user.

22. ATM according to claim 21, wherein the controller means accepts additional instructions for allowing

- ii) a second user to program the first button to perform a second predetermined function, different from the first predetermined function, when later actuated by the second user.

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24. Apparatus, comprising:

- a) an Automated Teller Machine (ATM) which includes
 - i) a touch-sensitive display;
 - ii) a dispenser for dispensing cash to a user;
 - iii) a card reader; and
- b) a plurality of N buttons
 - i) all of which protrude from a surface of the ATM,
 - ii) all of which are three dimensional,
 - iii) which are of N different shapes,
 - iv) each of which executes a different one of N transactions when activated.

25. Apparatus according to claim 24, wherein the N buttons are effective to enable a blind person to select and execute one of the N transactions, without reference to any text on the display.

26. Apparatus according to claim 25, wherein the touch-sensitive display is effective to enable a sighted person to select and execute a transaction, with reference to text presented on the display.

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27. Apparatus according to claim 24, wherein the buttons are distinguishable from each other by a blind person, based on shape.

28. Apparatus according to claim 24, and further comprising:
c) configuration means for enabling a user to change the function executed by at least some buttons.

29. Apparatus according to claim 24, wherein at least one button performs a function A for a user U1, and a different function B for another user U2.

30. Apparatus according to claim 24, wherein the N different shapes include

- i) an elliptical shape,
- ii) a square shape,
- iii) a circular shape,
- iv) a diamond shape,
- v) a triangular shape, and
- vi) a five-pointed star shape.

31. Apparatus according to claim 24, further comprising:
c) an indicator or text associated with each respective button, which describes a function which the button executes.

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32. Apparatus according to claim 31, wherein

- i) for some users, at least one button performs a function described by its associated indicator or text, and
- ii) for other users, said button performs a different function, not described by the associated indicator or text of the button.

33. Apparatus, comprising:

- a) an ATM;
- b) a plurality of buttons supported by the ATM, wherein
 - i) each button has a combination of (specific size, specific shape, and specific texture), and
 - ii) no two buttons have the same combination.

34. Apparatus according to claim 33, and further comprising:

- c) an indicator or text associated with each respective button, which describes a function which the button executes.

35. Apparatus according to claim 34, and further comprising control means which

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- i) detects actuation of a selected button and
- ii) in response, executes the function indicated by the indicator or text associated with the selected button.

36. Apparatus according to claim 35, and further comprising:

- c) configuration means for enabling a user to change the function executed by each button.

37. Apparatus according to claim 33, wherein at least one button performs a function A for a user U1, and a different function B for another user U2.

38. Apparatus according to claim 33, wherein

- i) for some users, at least one button performs a function described by its associated indicator or text, and
- ii) for other users, said button performs a different function, not described by the associated indicator or text of the button.

39. Apparatus according to claim 33, wherein the buttons include

- i) a button of elliptical shape,

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- ii) a button of square shape,
- iii) a button of circular shape,
- iv) a button of diamond shape,
- v) a button of triangular shape, and
- vi) a button of five-pointed star shape.

40. Automated Teller Machine, comprising:

- a) a row of buttons, all of different shapes;
- b) a display which presents a label for each button;
- c) a dispenser for dispensing cash to a user;
- d) a card reader for reading a passcard supplied by a user;
- e) control means for detecting a press of a button, and executing a function described by the label associated with the button;
- f) configuration means for allowing a user to change the function executed by said button, so that said button performs different functions for different users.

41. An Automated Teller Machine, ATM, comprising:

- a) an interface in which every user-actuated button is a different combination of (size, shape, and color), compared with all other buttons; and
- b) controller means for accepting instructions for

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i) allowing a first user to program a first set of buttons to perform a first set of functions, when later actuated by the first user; and

ii) allowing a second user to program a second set of buttons to perform a second set of functions, different from the first set, when later actuated by the second user.